This Listing of Claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Cancelled).

2. (Currently Amended) ~~An ink cartridge in accordance with claim 1~~An ink cartridge configured to be detachably attached to a printer, said ink cartridge comprising:

an ink reservoir in which an ink used for printing is kept; and

a storage unit storing specific information in a readable, writable, and non-volatile manner, wherein the specific information comprises an ink quantity-relating information relating to a quantity of ink kept in said ink reservoir,

wherein the storage unit is accessed in synchronism with a clock signal, and has an ink quantity information storage area storing the ink quantity-relating information, and wherein the ink quantity information storage area is located at a specific area that is the area located within the storage unit that is accessed for rewriting by said printer first before accessing for rewriting any other area within the storage unit,

wherein said ink reservoir comprises a specific number of ink chambers corresponding to a number of different inks used for printing, and the ink quantity information storage area has a storage capacity according to the number of different inks.

3. (Original) An ink cartridge in accordance with claim 2, wherein the ink quantity information storage area has a storage capacity of at least three bytes.

4. (Original) An ink cartridge in accordance with claim 3, wherein the ink quantity-relating information is written into the ink quantity information storage area at a time of replacement of said ink cartridge and/or at a power-off time of said printer..

5. (Original) An ink cartridge in accordance with claim 3, wherein said ink reservoir has at least three ink chambers, in which at least three different color inks are kept respectively,

the ink quantity information storage area having a plurality of memory divisions, wherein the plurality of memory divisions store pieces of information relating to quantities of the at least three different color inks kept in said respective ink chambers independently,

a storage capacity of at least one byte being allocated to each of the plurality of memory divisions.

6. (Original) An ink cartridge in accordance with claim 3, wherein the ink quantity information storage area has a storage capacity of at least five bytes,

said ink reservoir having at least five ink chambers, in which at least five different color inks are kept respectively,

the ink quantity information storage area having a plurality of memory divisions, wherein the plurality of memory divisions store pieces of information relating to quantities of the at least five different color inks kept in said respective ink chambers independently,

a storage capacity of at least one byte being allocated to each of the plurality of memory divisions.

7. (Original) An ink cartridge in accordance with claim 6, wherein the at least five different color inks comprise three deep color inks and two light color inks, the two light color inks correspond to two deep colors among the three deep color inks,

in the ink quantity information storage area, the memory divisions for storing the pieces of information regarding the three deep color inks being located at a first place written first by said printer, and the memory divisions for storing the pieces of information regarding the two light color inks being located at a second place written next by said printer.

8. (Original) An ink cartridge in accordance with claim 7, wherein the three deep color inks are cyan, magenta, and yellow, and the two light color inks are light cyan and light magenta.

9. (Original) An ink cartridge in accordance with claim 8, wherein the pieces of information relating to the remaining quantities of the respective inks are written into the memory divisions at a time of replacement of said ink cartridge and/or a power-off time of said printer.

10. (Cancelled).

11. (Currently Amended) An ink cartridge in accordance with any one of claims ~~1~~2 through 9, wherein said storage unit has a plurality of storage areas, and

the ink quantity information storage area is a first storage area located at a head of the plurality of storage areas included in said storage unit.

12. (Currently Amended) An ink cartridge in accordance with any one of claims ~~1~~2 through 9, wherein said storage unit has a plurality of storage areas,

the ink quantity information storage area is a last storage area located at an end of the plurality of storage areas included in said storage unit.

13. (Original) An ink cartridge in accordance with claim 12, wherein the ink quantity-relating information regards a remaining quantity of ink in said ink reservoir.

14. (Original) An ink cartridge in accordance with claim 12, wherein the ink quantity-relating information regards a cumulative amount of ink consumption with regard to said ink reservoir.

15-16. (Cancelled).

17. (Currently Amended) ~~An ink cartridge in accordance with claim 15~~An ink cartridge configured to be detachably attached to a printer, said ink cartridge comprising:

an ink reservoir in which an ink used for printing is kept; and

a storage unit storing information in a readable, writable, and non-volatile manner and being accessed in synchronism with a clock signal, said storage unit having a first storage area, in which a plurality of read only information is stored, and a second storage area, which is the area located within the storage unit that stores rewritable information relating to a quantity of ink kept in said ink reservoir and is accessed for rewriting by said printer first before accessing for rewriting any other area within the storage unit,

wherein said ink reservoir has a plurality of ink chambers, in which a plurality of different color inks are kept respectively,

wherein the rewritable information stored in the second storage area comprises plural pieces of information on remaining quantities of the different color inks kept in the respective ink chambers, and wherein the plural pieces of information on remaining quantities of the different color inks are calculated by said printer.

18-19. (Cancelled).

20. (Original) An ink cartridge in accordance with claim 17, wherein the second storage area has at least two memory divisions, into which a latest piece of information on the remaining quantity of ink is written sequentially.

21-22. (Cancelled).

23. (Currently Amended) An ink cartridge in accordance with any one of claims ~~1~~2 through 9, 17 and ~~15 through~~ 20, wherein said storage unit is an EEPROM.

24. (Currently Amended) An ink cartridge in accordance with any one of claims ~~1~~2 through 9, 17 and ~~15 through~~ 20, wherein said storage unit has format information relating to items of information stored therein.

25. (Original) An ink cartridge in accordance with claim 24, wherein the format information is registered in a head area of said storage unit.

26-36. (Cancelled).

37. (Currently Amended) ~~A method in accordance with claim 35 further comprising the step of:~~A method of writing plural pieces of specific information into an ink cartridge, said ink cartridge being configured to be detachably attached to a printer and having a storage element, said method comprising the steps of:

(a) receiving the plural pieces of specific information that are to be written into said storage element by said printer, wherein the plural pieces of specific information comprises information relating to a quantity of ink kept in said ink cartridge and other information;

(b) rewriting the ink quantity-relating information into said storage element, preferentially over the other pieces of specific information at an area within the storage element that is the area located within the storage element that is accessed for rewriting first before accessing for rewriting any other area within the storage element; and

(c) arranging the plural pieces of specific information in a certain sequence that allows the ink quantity-relating information to be located in a specific storage capacity from a head, which is determined according to a specific number of different inks,

wherein the step (b) writes the plural pieces of specific information into said storage element in the arranged sequence.

38. (Original) A method in accordance with claim 37 further comprising the step of:

(c-1) arranging the plural pieces of specific information in a certain sequence that allows the pieces of information relating to the quantities of the at least three different color inks to be located in a storage capacity of at least three bytes from a head,

wherein the step (b) writes the plural pieces of information into said storage element in the arranged sequence.

39. (Original) A method in accordance with claim 37 further comprising the step of:

arranging the plural pieces of specific information in a certain sequence that allows the pieces of information relating to the quantities of the at least five different color inks to be located in a storage capacity of at least five bytes from a head,

wherein the step (b) writes the plural pieces of information into said storage element in the arranged sequence.

40. (Original) A method in accordance with claim 39, wherein the at least five different color inks comprise three deep color inks and two light color inks, which correspond to two deep colors among the three deep color inks,

the plural pieces of specific information being arranged in said step (c-2) in such a manner that the pieces of information regarding the three deep color inks are located prior to the pieces of information regarding the two light color inks.

41. (Original) A method in accordance with claim 40, wherein the three deep color inks are cyan, magenta, and yellow, and the two light color inks are light cyan and light magenta.

42. (Original) A method in accordance with claim 41, wherein the plural pieces of specific information are written into said storage element by sequential accesses.

43. (Original) A method in accordance with claim 42, wherein the ink quantity-relating information regards a cumulative amount of ink consumption with regard to said ink cartridge.

44. (Original) A method in accordance with claim 42, wherein the ink quantity-relating information regards a remaining quantity of ink in said ink cartridge.

45-53. (Cancelled).

54. (Currently Amended) A printer, to which an ink cartridge in accordance with any one of claims ~~1~~2 through 9, 17 and ~~15 through~~ 20 is detachably attached, said printer comprising:

a storage device that stores plural pieces of specific information,

wherein the plural pieces of specific information comprises information relating to a quantity of ink kept in said ink cartridge; and a writing unit that writes the ink quantity-relating information into the ink quantity information storage area of said ink cartridge, preferentially over the other pieces of specific information.

55-56. (Cancelled).

57. (Currently Amended) ~~An ink jet printer in accordance with claim 56~~, An ink jet printer comprising an ink cartridge, which is detachably attached to a printer main body and in which ink is kept, and said printer main body that causes the ink kept in said ink cartridge to be ejected from a print head to a printing medium, so as to implement printing on said printing medium,

wherein said ink cartridge comprises a storage device, said storage device comprising a storage unit and an address counter that carries out either one of a count-up operation and a count-down operation in response to a clock signal in the course of information transmission between said storage unit and said printer main body,

said storage unit included in said storage device comprises a first storage area, in which read only information is stored and which is only read by said printer main body, and a

second storage area, in which rewritable information is stored and which is the area located within the storage device that is accessed for rewriting by said printer first before accessing for rewriting any other area within the storage device,

said ink jet printer has an information input-output unit that carries out reading and writing operations in response to a clock signal,

wherein said ink cartridge comprises a plurality of ink chambers, in which a plurality of different color inks are kept respectively,

the rewritable information stored in the second storage area comprising information relating to remaining quantities of the different color inks kept in the respective ink chambers, which are calculated by said printer main body.

58. (Previously Presented) An ink jet printer in accordance with claim 57, wherein the second storage area comprises at least two memory divisions, into which latest information relating to the remaining quantity of ink are sequentially written.

59. (Original) An ink jet printer in accordance with claim 58, wherein the data relating to the remaining quantity of ink are written after a power-off operation of said printer main body.

60. (Original) An ink jet printer in accordance with claim 59, wherein the rewritable data stored in the second storage area comprises at least one selected among data regarding a time period elapsing after unsealing said ink cartridge and data regarding a frequency

of attachment and detachment of said ink cartridge to and from said printer main body, both the elapsing time period and the frequency of attachment and detachment being measured by said printer main body.

61. (Original) An ink jet printer in accordance with claim 60, wherein the read only data stored in the first storage area comprises at least one selected among data regarding a year, month, and date of manufacture of said ink cartridge, data regarding a type of ink stored in said ink cartridge, and data regarding a capacity of said ink cartridge.

62. (Original) An ink jet printer in accordance with claim 61, wherein said storage device is an EEPROM.

63-98. (Cancelled).

99. (Currently Amended) ~~An ink cartridge in accordance with claim 98~~, An ink cartridge configured to be detachably mountable on a printer, comprising:

an ink reservoir for keeping ink; and

a non-volatile memory being accessed from an access start position in synchronism with a clock signal, the memory having a first memory area for storing information not to be updated according to use of the ink cartridge and a second memory area for storing information to be updated according to use of the ink cartridge,

wherein the second memory area has a specific area for storing ink quantity information related to consumption of the ink, the specific area being located at a front end of the

second memory area which is to be written first before accessing for rewriting any other area within the second memory area,

wherein the second memory area is located at a first half of an entire memory space of the non-volatile sequential access memory.

100-103. (Cancelled).

104. (Currently Amended) ~~An ink cartridge according to claim 100~~An ink cartridge configured to be detachably attached to an ink-jet printer, comprising:

an ink storage reservoir; and

a non-volatile storage element that stores information, the storage element having:

a first storage area for storing read-only information, and

a second storage area for storing rewritable information pertaining to ink-quantity related information, wherein the second storage area is accessed for rewriting by the printer first before accessing for rewriting any other area within the storage element,

wherein a maximum amount of the first information that the first storage area can store is equal to a maximum amount of the second information that the second storage area can store.

105-110. (Cancelled).

111. (Currently Amended) ~~A method according to claim 108~~A method of providing information in an ink cartridge that is configured to be detachably mountable on a printer, the ink cartridge having a non-volatile memory, comprising the steps of:

first, storing read-only information in a first storage area of the memory; and

second, storing rewritable information, pertaining to ink-quantity related information at a second storage area of the memory, wherein the second storage area is accessed for rewriting by said printer first before accessing for rewriting any other area within the memory,

wherein a maximum amount of the read-only information that is stored is equal to a maximum amount of the rewritable information that is stored.

112-114. (Cancelled).